

generate data defining an image of the three-dimensional computer model showing the selected part of the subject object using a viewing camera defined relative to the stored calibration pattern.

5

32. A system according to claim 31, wherein the second apparatus further includes a data transmitter operable to send to the first apparatus instructions for enabling the first apparatus to control a printing apparatus to print the calibration pattern, and a calibration pattern store for storing data defining the calibration pattern for subsequent use.

10

33. A system according to claim 32, wherein the second apparatus is operable to send the instructions to the first apparatus including instructions for enabling the first apparatus to control the printing apparatus to print a front marker as well as the calibration pattern.

15

20

34. A system according to claim 33, wherein the front marker comprises, or includes, a word.

25

35. A system according to claim 31, wherein the second apparatus is operable to send to the first apparatus information defining the predetermined direction.

36. Apparatus for generating data defining a three-dimensional computer model of a subject object and data defining a viewing camera for the three-dimensional computer model to show a predetermined part of the subject object, comprising:

5 a data receiver for receiving image data defining images of a subject object together with a calibration pattern recorded at different relative recording positions and orientations, the subject object being positioned relative to the calibration pattern so that a selected part of the subject object which is to appear in an image of the three-dimensional computer model generated using the viewing camera faces in a predetermined direction relative to the calibration pattern;

10 a position and orientation calculator operable to process the image data to calculate the relative positions and orientations at which the images were recorded by comparing the calibration pattern in the images with stored data defining the calibration pattern;

15 a computer model generator operable to generate data defining a three-dimensional computer model of the subject object relative to the stored calibration pattern using the calculated positions and orientations; and

20 a viewing camera generator operable to generate data

09983039 10201
T000T 00000

5

10

15

25